

BOROVSKIY, Ye.V., assistant.

Phosphorus and calcium metabolism in the hard tissues of the
tooth in experimental vitamin B₁ deficiency in dogs.
Stomatologiya, no.6:16-20 N-D '55. (MLRA 9:5)

1. Iz kafedry patologicheskoy fiziologii (zav.-prof. N.A. Fedorov)
i kafedry terapevticheskoy stomatologii (zav.-prof. Ye.Ye. Platonov)
Moskovskogo meditsinskogo stomatologicheskogo instituta (dir.-dotsent
G.N. Beletskiy)

(VITAMIN B₁ DEFICIENCY, exper.

eff. on phosphorus & calcium metab. in hard tissue of
teeth)

(PHOSPHORUS, metab.

in hard tissue of teeth in vitamin B₁ defic.)

(CALCIUM, metab.

same)

(TEETH, metab.

calcium & phosphorus metab. in hard tissue, eff. of
exper. vitamin B₁ defic.)

2504. Exchange of phosphorus and calcium in hard tissues of teeth in dogs with experimental B₁₂ avitaminosis. E. V. Borovski. *Sloynatologiya*, 1955, No. 6, 18-20; *Referat. Zh. Biol.*, 1956, Abstr. No. 78145. — The metabolism of P and Ca was studied by the use of radio-strontium in healthy dogs and in dogs with avitaminosis B₁₂ produced by keeping the dogs on a synthetic saccharose-calcium diet or on an autoclaved (3-4 hr.) diet containing some other vitamins. In healthy dogs the ⁴⁵P and ⁸⁵Sr in all tissues of the tooth appeared in about 3-4 hr. after subcut. injection. The highest activity was found in the dentine of the root and the least in the enamel. In dogs with B₁₂ avitaminosis accumulation of ⁴⁵P and ⁸⁵Sr in the enamel, cementum and dentine was 1-2 times higher than in the healthy dogs. In the later stage the activity was smaller than in the normal dogs. Delay in loss of the milk-teeth was noted. Exchange of ³²P in B₁₂ avitaminosis was similar to that found in carious teeth. In both conditions increased ³²P was found. (Russian)
G. Frolin

BOROVSKIY, Ye.V.; BARYSHEVA, Yu.D.

Treating glossalgia with vitamin B₁₂. Stomatologiya 36 no.3:25-26
My-Je '57. (MIRA 10:9)

1. Iz kafedry terapevticheskoy stomatologii (zav. - prof. Ye.Ye.
Platonov) Moskovskogo meditsinskogo stomatologicheskogo instituta
(dir. - dotsent G.N.Baletskiy)
(TONGUE--DISEASES) (VITAMINS--B)

BOROVSKIY, Ye. V.
BOROVSKIY, Ye. V., assistant

Penetration and distribution of calcium in hard dental tissues.
Stomatologiya 36 no.6:11-13 N-D '57. (MIRA 11:2)

1. Iz kafedry patofiziologii (zav. - prof. N.A.Fedorov) Moskovskogo
meditsinskogo stomatologicheskogo instituta (dir. - dotsent G.N.
Beletskiy)

(CALCIUM IN THE BODY) (TEETH)

BOROVSKIY, Ye.V., dotsent

Quantitative evaluation of calcium metabolism in the enamel and dentine by microphotometry. Stomatologiya 38 no.6:9-11 N-D '59.
(MIRA 13:4)

1. Iz kafedry patologicheskoy fiziologii (zaveduyushchiy - prof. N.A. Fedorov) i kafedry terapevticheskoy stomatologii (zav. - prof. Ye.Ye. Platonov) Moskovskogo meditsinskogo stomatologicheskogo instituta (direktor - dotsent G.N. Beletskiy).
(CALCIUM METABOLISM) (TEETH) (MICROPHOTOMETER)

BONOVSKIY, Ye.V., dotsent; GARADZHA, V.I., dotsent

Problem of the biology of the dental enamel. Stomatologiya 41
no.4:10-15 J1-Ag '62. (MIRA 15:9)

1. ¹z kafedry terapevticheskoy stomatologii (zav. - prof. Ye.Ye.
Platonov) i kafedry marksizma-leninizma (zav. - dotsent P.M.
Loshakova) Moskovskogo meditsinskogo stomatologicheskogo instituta.
(ENAMEL, DENTAL)

DUBROVSKIY, V.D.; BOROVSKIY, Ye.V.

The TKZ unified gas-black oil burner. Riul.tekh.ekon.inform.Gos.
nauch.-issl.inst.nauch.i tekhn.inform. 17 no.10:62-65 0 '64.
(MIRA 18:8)

17
Borovskii, Yu. E. On the independence of the axiom of Archimedes. Uspehi Mat. Nauk (N.S.) 11 (1956), 5(71), 161-167. (Russian) 21-F/W

The author constructs an ordered non-archimedean field U_3 which has the strong "Cantor completeness" property that every non-increasing (\geq) sequence of segments has a non-empty intersection. Starting with an ordered set U_1 which is constructed so that no element or gap (including the initial and terminal "gaps") has both its characters finite or denumerable, he defines first the ordered abelian group U_2 of transfinite power series with exponents in U_1 and real coefficients, and then the ordered field U_3 of transfinite power series with exponents in U_2 and real coefficients. [The "transfinite power series" method is due to Hahn, S.-B. Akad. Wiss. Wien. IIa. 116 (1907), 601-655.]

E. Mendelson.

L 14410-63

EPF(c)/EPR/EWT(m)/BDS

AFFTC/ASD

Pr-4/Ps-4

JIT(IJP)/BW/

WW/JW/JWD/H

ACCESSION NR: AP3003241

S/0040/63/027/003/0468/0473

70
66

AUTHOR: Borovskiy, Yu.Ye.; Kulakov, Yu.I. (Novosibirsk)

TITLE: Motion of systems of varying structure in the presence of variational forces

SOURCE: Prikladnaya matematika i mekhanika, v. 27, no. 3, 1963, 468-473

TOPIC TAGS: rocket, center of gravity, variational force, velocity, reaction force

ABSTRACT: The authors obtain an equation for the motion of a system of varying structure, taking into account the variational forces arising as a result of non-stationary motion of the medium and related to the change (variation) of the quantity of motion with respect to the rigid hull. They give a solution of the Okhotsimskiy problem and study the effect of variational forces on the motion of systems of varying structure with fluid as the working substance. They study the possibility of increasing the finite speed of such systems at the cost of introducing periodic displacements, by interior forces, of the center of gravity of the system with respect to the hard hull. A general expression is given for

Card 1/2

L 14410-63

ACCESSION NR: AP3003241

the variational forces arising with nonstationary motion of the medium comprising the working substance and the equal change in the quantity of motion of the system with respect to its rigid hull. From this expression it follows that the variational forces for a rocket with liquid or solid fuel are negligibly small in comparison with the reaction forces. However, there exist a series of systems in which these forces play an essential role. In conclusion the authors thank F. R. Gantmakher. Orig. art. has: 19 formulas and 6 figures.

ASSOCIATION: Institut matematiki SO AN SSSR, Novosibirskiy gosudarstvennyy universitet (Institute of Mathematics, Novosibirsk State University, SO AN SSSR)

SUBMITTED: 27Oct62

DATE ACQ: 23Jul63

ENCL: 00.

SUB CODE: GM, MM

NO REF SOV: 002

OTHER: 000

Card 2/2

BOROVSKIY, Yu.Ye.

Bez's theorem for irregular hypersurfaces. Sib. mat. zhur. 4 no.4:
744-751 JL-Ag '63. (MIRA 16:9)

800, pmf
4
✓ 16594* (Russian.) Investigating Non-Metallic Inclusions in Castings With Radioactive Isotopes. Issledovanie zasorov v odlivkakh pri pomoshchi radioaktivnykh izotopov. B. B. Gubaev, Iu. F. Borovikii, Z. V. Sigalova, and E. S. Sokolova. Leningradskoe Proizvodstvo, 1956, no. 8, Aug. 1956, p. 25-27. Studied primarily the inclusions carried into the casting from the walls of the mold. The W^{181} isotope was mixed into the molding sand and the amount of inclusions in the casting was determined by autoradiography.

pmf KLD

БОКОВСКИЙ, Ю. П.

С. П. Бокровский, Институт физики металлов, Ленинград

В работе описаны результаты исследования влияния температуры на прочность и деформационные свойства сталей марки 1-50. Показано, что с повышением температуры происходит резкое снижение прочности и увеличение пластичности. Исследованы также процессы деформации и разрушения в условиях динамического нагружения.

Введение. В настоящее время большое внимание уделяется изучению влияния температуры на механические свойства сталей. Это связано с тем, что многие конструктивные детали работают в условиях высоких температур. В данной работе описаны результаты исследования влияния температуры на прочность и деформационные свойства сталей марки 1-50. Показано, что с повышением температуры происходит резкое снижение прочности и увеличение пластичности. Исследованы также процессы деформации и разрушения в условиях динамического нагружения.

Ю. П. Бокровский

BOROVSKIY, Yu.F

PHASE I BOOK EXPLOITATION

549

Nauchno-tekhnicheskoye obshchestvo mashinostroitel'noy promyshlennosti.
Liteynaya sektsiya

Uluchsheniye kachestva stal'nykh otlivok; trudy Vsesoyuznogo
soveshchaniya (Improving the Quality of Steel Castings;
Transaction of the All-Union Conference) Moscow, Mashgiz,
1958. 214 p. 4,500 copies printed.

Eds.: Klauzen, A.I., Engineer; and Silayev, A.F., Candidate of
Technical Sciences. Ed. of Publishing House: Manakin, N.V.;
Tech. Ed.: Shigin, S.T.; Managing Ed. for literature on heavy
machine building (Mashgiz): Golovin, S.Ya.

PURPOSE: This book is intended for engineers, technicians, and
scientific workers at research institutes and plants, as well as
for students at advanced technical schools.

COVERAGE: The book is a collection of papers presented at a scientific
and technical conference on the improvement of the quality of steel

Card 1/12

Improving the Quality of Steel Castings (Cont.) 549

castings. The conference was organized by the Casting Section of NTOMASHPROM (Scientific and Technical Society of the Machine-Building Industry) in March, 1955. The articles present the results of investigations concerned with the processes of melting, pouring, and solidification, as well as with interaction between mold and casting, heat treatment of steel, and correction of casting defects. For references, see Table of Contents.

TABLE OF
CONTENTS:

Silayev, A.F., Candidate of Technical Sciences. Ways of Improving
the Quality of Steel Castings 3

The author states that casting rejects at Soviet foundries average 3.5 percent of the total output. Two important causes of this, he says, are outmoded production methods and inadequate supply of proper

Card 2/12

Improving the Quality of Steel Castings (Cont.) 549

materials and equipment. He points out that the USSR lags behind the USA in mechanization and automation of casting processes. He recommends the speedy adoption of modern, efficient technological methods and, above all, an intensification of research in casting methods.

Berg, P.P., Professor, Doctor of Technical Sciences. Effect of Mold Material on the Quality of Castings 11

The author discusses gas cavities, hot cracks, dimensional accuracy, pick-up, surface quality, and surface alloying in connection with the nature of the mold material.

Borovskiy, Yu. F., Engineer; Gulyayev, B.B., Professor, Doctor of Technical Sciences, Increasing the Surface Smoothness of Castings 19

Card 3/12

Improving the Quality of Steel Castings (Cont.) 549

For cheaply producing smooth-surface castings, the authors recommend the use of two-layer pressed molds or bakelite-bonded shell molds, the supporting layer being made of cheaper, coarser material.

Mylko, S.N., Docent, Candidate of Technical Sciences. Effect of the Oxidizing Capacity of the Bath on the Quality of Steel 23

The authors conclude from experimental data that in making carbon steel for shaped castings without preliminary deoxidation, better mechanical properties are obtained by oxidizing a large proportion of the manganese in the bath, which results in a better distribution of oxide and sulfide inclusions.

In'shakov, N.N., Candidate of Technical Sciences. Comparative Evaluation of the Mechanical Properties of Open-hearth, Bessemer, and Electric Steel 32

The author's investigations lead him to the following conclusions, among others: 1. Acid electric steel, made by the silicon-reduction process, has, in addition to higher ultimate strength, better plastic

Card 4/12

Improving the Quality of Steel Castings (Cont.) 549

properties - elongation and reduction in area- than basic open-hearth steel. Bessemer steel, with an ultimate strength close to that of basic open-hearth steel, shows less elongation and reduction in area, and these properties vary considerably in individual cases. 2. Increasing the carbon content leads in all cases to an increase in ultimate strength and a decrease in elongation and reduction in area; this effect of carbon is greater in electric steel than in Bessemer steel. 3. In acid electric steel, as compared with open-hearth steel, an increase in the manganese content has a more marked effect in increasing the ultimate strength and yield point and a less pronounced effect in decreasing elongation and reduction in area. Increasing the manganese content in Bessemer steel has a less adverse effect on the plastic properties than in basic open-hearth steel. 4. The common view of Bessemer steel as being necessarily inferior to basic open-hearth steel in its mechanical properties ought to be revised. 5. Acid electric steel is characterized by greater cold shortness than basic open-hearth steel. 6. As regards endurance, there is little difference among the steels investigated.

Card 5/12

Improving the Quality of Steel Castings (Cont.) 549

Druyan, M.A , Engineer. Effect of the Method of Steelmaking on the Mechanical Properties of Steel 49

Of the factors investigated, the most important is the rapid burning-out of carbon in the bath, made possible by high-temperature melting and proper care of the hearth. Other factors are addition of coke to the charge, manner of deoxidizing the molten metal, and the method of desulfurization.

Iodkovskiy, S.A., Engineer. Making Heat-Resistant Austenitic Steel 61

The author concludes from his investigation that the most effective way to make LA-1 steel is to purify the melt under a layer of semi-acid slag.

Card 6/12

Improving the Quality of Steel Castings (Cont.) 549

Nestertsev, S.P., Candidate of Technical Sciences. Casting Properties of Heat-resistant Austenitic Steel 75

The author's investigation shows, among other things, that molten LA-1 heat-resistant steel possesses greater flowability than the widely-used 30L carbon steel, and that the basic factor determining flowability of LA-1 steel is temperature of the metal during pouring.

Ivanyushin, Ye. P., Engineer; Kulikova, K.N. Selection of Optimum Heat-treating Conditions 86

The following are investigated for their effect on the mechanical properties and microstructure of steel castings: 1) low-temperature annealing and normalization 2) higher-temperature annealing and normalization, with holding at temperature for various periods of time 3) rate of cooling. In addition, the effect of heat-treating conditions on the plastic properties of steel is studied.

Card 7/12

Improving the Quality of Steel Castings (Cont.) 549

Vlasov, V.I., Candidate of Technical Sciences. Effect of
Technological Factors on the Quality of Cast Parts 98

Among other things, the author recommends the use of sinkheads to
promote slow, even cooling, thus assuring a sound, dense structure
of the casting.

Kryanin, I.R., Candidate of Technical Sciences; Babushkina, G.I.
Copper Steel for Shaped Castings 109

The use of the newly developed 18DGSL copper-manganese-silicon
steel is recommended for the production of strong, light-weight
shaped castings. There are 12 references, all Soviet.

Lupyrev, I.I., Engineer; Kononov, D.R., Professor, Doctor of
Technical Sciences; Gulyayev, B.B. Prevention of Hot Cracks 125

Card 8/12

Improving the Quality of Steel Castings (Cont.)

549

The authors discuss methods of preventing hot cracks in castings caused primarily by clinging of the sand mold to the casting as the latter shrinks and by unsatisfactory mechanical properties of the steel at the crystallization temperature. It is recommended that the mold be designed so as to lessen its grip on the casting during shrinkage. This may be accomplished by making the mold more flexible, by maintaining definite distances between flask ribs and projecting parts of the casting, etc. The casting may be strengthened during the solidification period by the use of external coolers and by keeping the sulfur content of the casting below 0.045 percent.

Levando, V.V., Engineer; Kryanin, I.R., Candidate of Technical Sciences.
Structure and Properties of the Metal of Large Castings 133

The authors investigate 20GSL low-alloy manganese-silicon steel as a material for casting massive turbine blades. Such a blade was cast and analyzed to determine the degree of chemical homogeneity and also the macrostructure, microstructure, mechanical properties, and hardness of various sections of the blade. It was found that this

Card 9/12

Improving the Quality of Steel Castings (Cont.)

549

steel is very well suited for the casting of many types of machine parts where high strength and good plastic properties are required, and also for turbine blades, provided the blade is surfaced with stainless steel to assure cavitation stability.

Gulyayev, B.B., Professor, Doctor of Technical Sciences; Postnov, L.M., Engineer; Zotov, M.V., Engineer. Shrinkage Porosity and Means of Dealing With It. 143

Various types of porosity are discussed, methods of detecting them are explained, and measures for preventing porosity are described.

Some measures involve changes in design, while others are accomplished by improved techniques.

Postnov, L.M. The Effect of Fillet Radii on the Formation of Defects in Junctions 158

Card 10/ 12

Improving the Quality of Steel Castings (Cont.)

549

The author gives criteria for selecting fillet radii in various cases. There are 3 references, all Soviet.

Goryunov, I.I., Candidate of Technical Sciences. Defects in Investment Castings

165

The following types of defects are discussed: surface defects, porosity, cavities, faulty dimensions, incorrect weight, undesirable metal structure, and unsatisfactory chemical composition and mechanical properties. There are 9 references, all Soviet.

Kosarikov, N.F., Engineer. Rationalization of Technology in Foundries; From the Experience of the "Krasnoye Sormovo" Plant im. A.A. Zhdanov

178

After World War II, the "Krasnoye Sormovo" Plant im. Zhdanov [in Gor'kiy] began assembly-line production of large items, such as steam locomotives, marine engines, etc. The author discusses the

Card 11/12

Improving the Quality of Steel Castings (Cont.)

549

principal technological improvements thereby necessitated:
1) more precise geometry of castings 2) improved quality of the
cast surface 3) a reduction in the number of internal defects
discovered in machining 4) more rapid methods of producing castings.

Petran', K.V., Candidate of Technical Sciences. Correction of Defects
by Welding 187

The author shows that this method is entirely satisfactory, provided
proper materials and techniques are employed. Procedural details
are given for the preparation of the defective items for welding and
for the actual process of welding-up the defects.

Suslov, V.N., Candidate of Technical Sciences. Automatic Welding-up
of Defects in Steel Castings 200

Of several possible methods for the automatic welding-up of casting
defects, the author considers arc welding in an atmosphere of carbon
dioxide the most promising. There are 6 references, all Soviet.

AVAILABLE: Library of Congress

GO/ksv
9-15-58

Card 12/12

BOROVSKIY, Y.F.

21(8)	PLANNING AND ORGANIZATION	500-504
	Vsesoyuznyy nauchnoissledovatel'skiy institut radiofiziki i elektroniki (USSR Academy of Sciences, Institute of Radio Physics and Electronics)	500-504
	Yuste i bukhgalterskiy otchet	505-506
	Trudy... Radiofizicheskoy i elektronicheskoy fiziki (Publications of the All-Union Scientific Institute of Radio Physics and Electronics)	507-508
	and Radiofizicheskoy i elektronicheskoy fiziki (Publications of the All-Union Scientific Institute of Radio Physics and Electronics)	509-510
	4,500 copies printed.	511-512
	Sponsoring Agencies: USSR, Chlenovye upravleniya po ispol'zovaniyu atomnoy energii, and Akademiya nauk SSSR.	513-514
	Editorial Board of Sci.: V.I. Dikshin, Academician (Resp. Ed.), M.M. Shumilovskiy (Deputy Resp. Ed.), L.S. Zaslavskiy (Deputy Resp. Ed.), L.K. Tachchenko, M.I. Kabanovskiy, S.G. Kabanov, L.I. Petrenko and M.G. Zaslavskiy (Secretary).	515-516
	Ed. of Publishing House: P.M. Belyanin; Tech. Ed.: T.P. Solovneva.	517-518
	PURPOSE: This book is intended for specialists in the field of machine and instrument manufacture who use radioactive isotopes in the study of materials and processes.	519-520
	COVERAGE: This collection of papers covers a very wide field of the utilization of tracer methods in industrial research and control techniques. The topic of this volume is the use of radioisotopes in the machine and instrument-manufacturing industry. The individual papers discuss the applications of radioisotopes and tracers in the study of metals and alloys, problems of friction in metal cutting, metal cutting, engine performance, and control of metal casting, metal cutting, engine performance, and control of metal casting. Several papers are devoted to the use of radioisotopes in the metal quality control, metal casting, metal cutting, engine performance, and control of metal casting. These papers represent contributions of various Soviet institutes and laboratories. They were published as Transactions of the All-Union Conference on the Use of Radioisotopes and Stable Isotopes and Radiation in the National Economy and Science, April 4-12, 1957. No personalities are mentioned. References are given at the end of most of the papers.	521-522
	Chernysheva, R.B. Method for Estimating the Degree of Degradation of Metals	108
	Orlyayev, B.P., Yu.L. Borovskiy, L.M. Postnov, O.M. Magnitskiy. Study of the Processes of Cast Formation in Sand Molds	112
	Vitkin, A.I. (Central'nyy nauchno-issledovatel'skiy institut chernoy metallurgii - Central Scientific Research Institute of Ferrous Metallurgy). Study of the Mechanisms of the Basic Processes in Hot Tin Plating	119
	Jordan, G.G., and K.S. Furman (Mashino-issledovatel'skiy institut teploenergeticheskogo priborostroyeniya - Scientific Research Institute of Heat-Power Instrument Making). Use of Nuclear Radiation for the Measurement of Heat-Power Parameters	124
	Verkhovskiy, E.I., V.A. Sotnikov, and V.Y. Yakubkin (Fizicheskii institut imeni P.M. Lebedeva - Institute of Physics imeni P.M. Lebedev, Academy of Sciences, USSR). Reduction of Errors in Measurements Performed With Scintillation Counters	127
	Korobova, V.A. (Fizicheskii institut imeni P.M. Lebedeva - Institute of Physics, Academy of Sciences, USSR). Radiation in Analytical Methods	134
	Afonas'ev, Y.M. Automation of Measurements and Recording of Radioactive Radiation Intensity	140
	Talichkin, Y.G. Study of the Electrical Properties of Ionization Resistors	146
	Regalin, Y.G., and A.A. Rudakovskiy (Vsesoyuznyy nauchno-issledovatel'skiy institut - All-Union Scientific Research Institute). Use of Radioactive Isotopes in the Automation of Measuring and Drifting Machines	150
	Jordan, G.G., and K.S. Furman (Mashino-issledovatel'skiy institut teploenergeticheskogo priborostroyeniya - Scientific Research Institute for Heat-Power Instrument Making). Measuring the Density of Liquids With Gamma Radiation	153

GULIAYEV, Boris Borisovich. Prinimali uchastiye: SHAPRANOV, I.A., kand.tekhn. nauk; MAGNITSKIY, O.N., kand.tekhn.nauk; POSTNOV, L.M., kand.tekhn. nauk; BOROVSKIY, Yu.F., kand.tekhn.nauk; KOLACHEVA, O.V., kand. tekhn.nauk. BERG, P.O., prof., doktor tekhn.nauk, zasluzhennyy de-yatel' nauki i tekhniki, retsenzent; PROZHOGIN, A.A., nauchnyy red.; CHFAS, M.A., red.izd-va; KONTOROVICH, A.I., tekhn.red.; SPERANSKAYA, O.V., tekhn.red.

[Founding processes] Liteinye protsessy. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 415 p.

(MIRA 13:7)

(Founding)

GULYAYEV, B.B., POSTNOV, L.M., BOROVSKIY, Yu.F.

Scabs on steel castings. Lit. proizv. no.6:25-29 Je '60.
(MIRA 13:8)

(Steel castings)
(Foundries--Quality control)

S/698/61/000/000/002/002
D040/D112

AUTHOR: Borovskiy, Yu.F.

TITLE: Akademiya nauk SSSR. Institut mashinovedeniya. Komissiya po tekhnologii mashinostroyeniya.
Features of the production of investment molds for castings of complex shape

SOURCE: Soveshchaniye po teorii liteynykh protsessov. 6th, 1960. Teoriya formovki; trudy soveshchaniya. Moscow, Izd-vo AN SSSR, 1961, 52-58

TEXT: Results are given of an investigation carried out in view of difficulties in casting thin-wall complex castings of special steel. It consisted in a study of the thermal expansion, distortion and mechanical strength of specimens made of the usual quartz sand as well as fireclay, molten quartz, olivine, artificial corundum and zirconium, and a study of investment molds with ceramic cores instead of with lost wax cores. The shrinkage of the mold material caused warpage, and the binder quality and the mesh of the refractories had a great effect, e.g. a binder with 9% SiO₂ shrank more than one with 18% SiO₂ and refractories with a mesh of 140 shrank more than those with a mesh of 30-50. The materials were tested as dusting powders as well as fillers. Molds were produced by coating patterns with 4 to 8 refractory
Card 1/3

S/698/61/000/000/002/002
D040/D112

Features of the production


coats. The following conclusions were made: When quartz sand is used both as a dusting powder and as a filler, and the number of coats is increased from 4 to 8, the distortion of the mold shell is reduced but not fully eliminated; an addition of sawdust to the filler also reduces distortion but does not eliminate it; the binder quality also has an effect, e.g. distortion abruptly increased when KP (KS) binder was used instead of a hydrolyzed ethyl silicate solution; artificial corundum, olivine, or fireclay used simultaneously as a dusting powder and as a filler, abruptly reduced distortion. The data were verified on 15 kg complex castings with a minimum wall thickness of 3-4 mm, whereby the quality of the castings was found to be satisfactory, i.e. no perceptible distortion of the molds was revealed. The ceramic cores were produced by different methods developed by I.D.Abramson, M.V.Sladkova, V.I.Kolchinskiy, and O.V.Kolacheva. Abramson's method requires roasting in special furnaces at a very high temperature, but the other three methods do not and are therefore more suitable for shop application. In Sladkova's method the core mix consists of a plastic mass, consisting of a refractory, a hydrolyzed ethyl silicate solution and ПП -15 (PP-15) plasticizer, which is pressed into a core box at 110°C; the molded cores are then dried in special dryers, after which the dryers with the cores are put into a box, covered with alumina, and fired for 20 hours at 1150-1200°C in a furnace. In Kolacheva's method the mix is a suspension consisting of a refractory, KS binder, and alkaline or acid additives; the suspension is poured

Card 2/3

Features of the production

S/698/61/000/000/002/002
D040/D112

or pressed into the core box and left to set and the extracted cores are dried for 1-2 days in air and then for 6 hours in a special box at 200°C, and finally fired for about 10 hours at 900°C. In Kolchinskiy's method the mix is also a suspension but with hydrolyzed ethyl silicate instead of KS; the slurry is either poured or pressed into the core box, sets in 1-2 min, then the cores are removed from the box and "ignited", i.e. spirit contained in the core mass is set on fire. The core "burns" for 1-10 min (depending on its size) and dries and strengthens in the process. No special firing of the cores is needed afterwards; they can be fired together with the mold. Kolchinskiy's method was found to be the best, as preparations of the cores takes only minutes, and the dimensions of the cores have the lowest shrinkage - they even increase by 0.1 to 0.3% in size after drying - whilst the Sladkova cores shrank by 0.9 to 1.1% and the Kolacheva cores by 2.4 to 2.9%. The Kolchinskiy cores are also the easiest to knock out from the castings, and leave a smooth metal surface. However, all the cores could be removed from inaccessible spots in the castings only by boiling in an alkaline bath. There are 5 figures and 3 tables.



Card 3/3

S/128/63/000/001/006/008
A004/A127

AUTHORS: Kuzin, A.V., Voronin, M.P., Borovskiy, Yu.F.

TITLE: Investment casting with soluble inserts of pump and compressor impellers

PERIODICAL: Liteynoye proizvodstvo, no. 1, 1963, 32 - 33

TEXT: To obtain a high surface finish of the inner hollow of impellers, they are cast in metal boxes with soluble carbamide cores according to the investment process. An allowance of 0.2 mm is left for polishing and a 1.5% shrinkage allowance of the steel. A brief description of core and model making is given. The models are made of the KPII (KPIs) compound whose melting point is by 35 - 40 °C higher than that of the carbamide cores. To prevent cracking of the mold, marshallit and quartz sand are replaced by fused quartz of a corresponding fraction. The castings shaken out are cleaned in a sandblast apparatus after anodic-mechanical cutting of the risers. This casting technology ensures cast impellers with minimum allowances on the inner surface and dimensional tolerances corresponding to the 2nd class of accuracy according to ГОСТ (GOST) 2009-55. Then

Card 1/2

Investment casting with soluble inserts of

S/128/63/000/001/006/008
A004/A127

the authors describe the casting of open compressor impellers which is carried out in a similar way. The models are melted out according to the following method: 3 hours at 150 C, 3 hours at 200 C and 3 hours at 250 C. The molds are roasted for 20 hours in a continuous electric furnace of the pusher type. After pouring the molten metal, the risers are covered with an exothermic mixture. There are 8 figures.

↓

Card 2/2

KUZIN, A.V.; VORONIN, M.P.; BOROVSKIY, Yu.F.

Precision casting of pump and compressor vanes with soluble
inserts. Lit. proizv. no.1:32-33 Ja '63. (MIRA 16:3)
(Precision casting)

GULYAYEV, B.B., doktor tekhn. nauk, prof., otv. red.; GET'MAN,
A.A., kand. tekhn. nauk, red.; BEROVNIY, Yu.F., kand.
tekhn. nauk, red.; SOLIMENY, Yu.F., kand. tekhn. nauk,
red.; KUZIN, A.V., inzh., red.

[Gases in cast metal] Gazy v litom metalle. Moskva, Izd-vo
"Nauka," 1964. 262 p. (MIRA 17:6)

1. Moscow. Institut mashinovedeniya.

YEVSTAF'YEV, I.N., inzh.; BOROVSKIY, Yu.F., kand. tekhn. nauk; FOMCHENKO,
S.I., kand. tekhn. nauk; GULYAYEV, B.B., doktor tekhn. nauk

Compacting molding mixtures by vibration squeezing. Lit. proizv.
no.9:4-6 S '65. (MIRA 18:10)

BOROVSKIY, Yu. Ye.

SUBJECT USSR/MATHEMATICS/Foundations of Mathematics CARD 1/2 PG-489
 AUTHOR BOROVSKI Ju.E.
 TITLE On the independence of the Archimedean axiom.
 PERIODICAL Uspechi mat.Nauk 11, 5, 161-167 (1956)
 reviewed 1/1957

The author proves the independence of the Archimedean axiom from Kantor's axiom on nested intervals. Here the latter one is taken in the following strengthened form: For every system of nested intervals there exists a point which is common to all intervals of the system (on the unlimited decrease of the intervals it is renounced). For the proof the author constructs three well-ordered sets \mathcal{A}_1 , \mathcal{A}_2 and \mathcal{A}_3 with the following property: Between each two consecutive at most countable subsets of \mathcal{A}_1 there lies at least one element. \mathcal{A}_1 can be obtained from an arbitrary well-ordered set by filling up with elements. As elements \mathcal{A}_2 has the formal transfinite series $a_\alpha t^\alpha + a_\beta t^\beta + \dots$, where $\alpha, \beta, \dots \in \mathcal{A}_1$ and a_α, a_β, \dots are real coefficients. For the elements of \mathcal{A}_2 the author explains order and addition. As elements \mathcal{A}_3 has the transfinite series $a_\alpha t^\alpha + a_\beta t^\beta + \dots$, where $\alpha, \beta, \dots \in \mathcal{A}_2$ and a_α, a_β, \dots are real. For the elements of \mathcal{A}_3 the author explains order,

Uspechi mat.Nauk 11, 5, 161-167 (1956)

CARD 2/2

PG - 489

addition and multiplication and furthermore it is proved that \mathcal{A}_3 is a field.
The further construction of the geometric model is made in usual manner
by consideration of the coordinate space with the coordinates of \mathcal{A}_3 .

BOROVSKIY, Yu.Ye., Cand Phys Math Sci --- (diss) "Generalized
solutions of the fully integrat^{ed}~~ing~~ systems of Pfaff." Len,
1959, 5 pp (Len Order of Lenin State Univ im A.A. Zhdanov)
150 copies (KL, 35-59, 111)

- 4 -

3

16(1)
 AUTHOR: Borovskiy, Yu.Ye. SOV/140-59-2-3/30
 TITLE: Completely Integrable Pfaff Systems (Vpolne integriruyemyye sistemy Pfaffa)
 PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Matematika, 1959, Nr 2, pp 28-40 (USSR)
 ABSTRACT: Given the system

$$(1) \quad dz^i = a_j^i(x, z) dx^j,$$

the coefficients $a_j^i(x, z)$ of which are summable in the square and satisfy the Lipschitz conditions with a coefficient which depends on x and is summable in p -th ($p > n$) power. The author gives conditions under which (1) is completely integrable, i.e. it admits solutions depending on the maximal number of parameters. It is stated that the conditions are the same as those for continuously differentiable coefficients (compare Finikov [Ref 1]), only the external differential of the form has to be understood in a somewhat generalized sense. The author uses a formula which, in the three-dimensional case, describes the

Card 1/2

Completely Integrable Pfaff Systems

SO7/140-59-2-3/30

vector field by divergence, rotor, and tangential components of the boundary. 17 definitions and theorems and a great number of conclusions and remarks are given. The author mentions S. L. Sobolev. A continuation of the paper is announced. There are 5 references, 4 of which are Soviet, and 1 German.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet (Leningrad State University)

SUBMITTED: March 25, 1958

Card 2/2

BOROVSKIY, Yu.Ye.

Entirely integrable Pfaff systems. Izv.vys.ucheb.zav.; mat. no.1:
35-38 '60. (MIRA 13:6)

1. Leningradskiy gosudarstvennyy universitet im. A.A.Zhdanova.
(Functional Analysis)

BOROVSKIY, Yu.Ye.

Liouville's theorem of conformal mappings in the irregular
case. Sib. mat. zhur. 3 no.5:797-801 S-0 '62. (MIRA 15:9)
(Conformal mapping)

FADDEYEV, Dmitriy Konstantinovich; PETROVSKIY, I.G., akademik, otv.red.
Prinimali uchastiye: SHAPIRO, A.P., student; TUSHKINA, T.A., studentka;
BOROVSKIY, Yu.Ye., student; SMIRNOV, G.P. [deceased], student;
KUTIKOV, L.B., student; IVANOV, F.A.; NIKOL'SKIY, S.M., prof.,
zamestitel' otv.rd.; SKOPIN, A.I., kand.fiz.-mat.nauk, red.izdaniya;
BARKOVSKIY, I.V., red.izd-va; BOCHEVER, V.T., tekhn.red.

[Tables of the fundamental unitary representations of Fedorov groups]
Tablitsy osnovnykh unitarnykh predstavlenii fedorovskikh grupp.
Moskva, Izv-vo Akad.nauk SSSR, 1961. 173 p. (Akademiia nauk SSSR.
Matematicheskii institut. Trudy, vol.56) (MIRA 14:4)

1. Leningradskiy gosudarstvennyy universitet, matematiko-mekhanicheskiy fakul'tet (for Shapiro, Tushkina, Borovskiy, Smirnov, Kutikov).
 2. Leningradskoye otdeleniye Matematicheskogo instituta im. V.A. Steklova (for Ivanov).
- (Crystallography--Tables, etc.) (Groups, Theory of)

FORAVIL, Oldrich, inz.; BOROVSKY, Martin, inz.; PAZITNY, Jozef

Potentiostatic isolation of microphases and intermetallic phases with
an automatic control of pH electrolyte. Hut listy 17 no.9:661-665
S '62.

1. Vyskumny ustav zvaracaky, Bratislava.

Z/034/63/000/001/005/012
E073/E151

AUTHORS: Opravil, Oldřich, Engineer; Borovský, Martin, Engineer;
Svatík, Ivan, and Pažitný, Jozef

TITLE: Contribution to determining oxide inclusions in high-
alloy steels

PERIODICAL: Hutnické listy, no.1, 1963, 52-55

TEXT: The electrolytic method of E. Piper, H. Hagedorn,
H. Kern and J. Ingeln (Radex-Rundschau, no.5/6, 1957, 776) for
isolating inclusions in austenitic steels was found to be
unsatisfactory because: a) at low current densities (below
10 mA/cm²) electrolysis was too slow; b) with 18/8 steels
containing Nb, Ti or Mo, higher values were obtained than by
metallographic examination for the total inclusions, but lower
values for oxide inclusions; c) 13/12 Cr-Ni steels caused
turbidity and 18/8 steels yielded no inclusions even after
passivation; and d) the ascorbic acid used was expensive.
The authors isolated carbides and inclusions by electrolysis in
1.5% alcoholic HCl at 40 mA/cm², at 8 °C max., the inclusions
being removed at least every four hours to minimise oxide losses
Card 1/3

Contribution to determining oxide... Z/034/63/000/001/005/012
E073/E151

by dissolution; these amounted to 1 - 2% for SiO_2 , 4 - 5% for Al_2O_3 , 13 - 15% for CaO , and 23 - 25% for MgO . The authors developed a method for isolating the oxides in the inclusions, by chlorination at comparatively high temperatures, using a cycle consisting of: 1) evacuation of the apparatus; 2) chlorination; and 3) sublimation of the chlorides produced; the cycle being repeated several times with automatic operation. Tests with pure carbides showed that even tungsten and chromium carbides were removed. Metallic contamination of the inclusions, if present, does not cause any trouble. The electrolysis can be carried out with a circulating electrolyte, which can be cooled and regenerated, so reducing oxide dissolution. In spite of this, the use of HCl electrolytes has the disadvantage that some oxides, e.g. MnO , are attacked considerably. Increasing the pH during electrolysis was disadvantageous, as it led to the formation of gelatinous precipitates resistant to chlorination. The advantages and disadvantages of several electrolytes are discussed, the authors preferring alcoholic acid electrolytes. Direct chlorination (with no electrolysis) could be used to study electrode coatings

Card 2/3

Contribution to determining oxide ...

Z/034/63/000/001/005/012
E073/E151

and fluxes, and the evacuation, chlorination and sublimation cycle
was flexible and could be varied as required.
There are 2 figures and 4 tables.

ASSOCIATION: Výskumny ústav zvaračský, Bratislava
(Welding Research Institute, Bratislava)

Card 3/3

L 38700-65 EWT(d)/EWP(w)/EWP(c)/EWA(d)/EWP(v)/EWP(t)/EWP(k)/EWP(b)/EWP(l)/
EWA(c) Pf-4/Peb DIAAP JD/HM
ACCESSION NR: AP5018985

CZ/0038/64/010/0012/0444/0444

AUTHOR: Zltanansky, Bohumil; Mackova, Helena; Horvath, Stefan; Borovsky, Martin

TITLE: Radionuclides as crack indicators

SOURCE: JADERNA energie, v. 10, no. 12, 1964, 444

TOPIC TAGS: weld defect, welding inspection

Abstract [summaries only, authors' English summary modified]: In welding it is often necessary to cope with cracks. Research and control require a convenient indicator which can give an undistorted picture of the quantity and quality of the possible cracks that must be evaluated in terms of their number and total length. Various crack indicators already have been reported. They are based, e.g., on color effects induced by suitable liquids on polished samples. Redox reactions also are used, combined in some instances with magnetic effects. The cracks detected in this manner usually appear to be larger than

Card 1/2

L 56700-65

ACCESSION NR: AP5018985

they actually are. A method has been worked out for using radionuclides for indicating cracks in welded joints. The method is generally applicable to other related fields. Beta sources of suitable energy and half life were used. A large series of samples of welded metals was investigated. The photographs obtained are noted for their sharpness and high resolution. The detailed technology will be published in Jaderna Energie in 1965.

ASSOCIATION: Vyskumny ustav zvaracaky, Bratislava (Welding Research Institute)

SUBMITTED: 00,

ENCL: 00

SUB CODE: MM, NP

NR REF SOV: 000

OTHER: 000

JPRS

Card 2/2

L 3763-66

EWP(v)/I/EWP(t)/EWP(k)/EWP(b)/EWA(c)

JD/HM

ACC NR: AP5027865

CZ/0034/65/000/001/0047/0050

AUTHOR: Opravil, Oldrich (Engineer, Candidate of technical sciences); Borovsky, Martin (Engineer)

TITLE: Use of electrolytic isolation of phases in solving some metallurgical and welding research problems

SOURCE: Hutnicke listy, no. 1, 1965, 47-50

TOPIC TAGS: phase analysis, electron microscopy, electrolysis, metal diffusion, carbon, welding technology, metallurgic research

ABSTRACT: Phase analysis of surface layers of ground materials is discussed. The depth of the layer of oxides, assuming that it is homogeneous, is 1.1 microns. The depth of the underlying layer is difficult to determine. The method is suitable for work in microanalysis, micro X-ray, and electron microscopy. Carbon diffusion from the welding rod into the basic metal or vice versa can be investigated by electrolytic isolation of the carbide phase, together with the graphite carbon in subsequent layers of the metal, and the analysis of C in the isolated sample. The depth of individual layers should be measured exactly. The process of diffusion can then be shown graphically. Elec-

Card 1/2

L 3763-66

ACC NR: AP5027865

Electrolytic isolation together with a magnetic separation facilitates analysis of oxide particles in powdered materials. Some disadvantage is caused by attack upon SiO_2 and an incomplete separation of magnetic and non-magnetic phases. However MnO and Fe_3O_4 cannot be lost. Orig. art. has: 1 table, 3 figures, 3 graphs.

ASSOCIATION: Vyzkumny ustav zvaracky, Bratislava (Welding Research Institute)

SUBMITTED: 00

ENCL: 00

SUB CODE: MM, GC

NR REF SOV: 000

OTHER: 003

JPRS

CC
Card 2/2

VAMOS, Tibor, a muszaki tudományok kandidátusa; BOROVSKY, Laszlo,
villamosmérnök

Calculation of economic load distribution by means of computers.
Elektrotechnika 52 no.8/9:358-369 '59.

BOROVSKY, Laszlo; VAMOS, Tibor, muszaki tudomanyok kandidatusa

An analogue computer for the automatic control of economical load distribution among power plants. Muszaki kozl MTA 31 no.1/4:55-61 '62.

1. Villamos Energetikai Kutato Intezet.

BOROVSKY, L.; GERTLER, J.; KAISER, M.; VAMOS, T., dr.

Data processing experimental device for power plants. Keres automat
13 no.2/3:67-69 '65.

1. Electric Power Industry Research Institute, Budapest.

BOROVTSOV, S.Z.; KONAROVSKIY, M.A.; DANILOV, A.P.

Use of the "Druzhba" gasoline-motor saw. Good.1 kart. no.3:
51-52 Mr '60. (MIRA 13:6)
(Chain saws)

ACC NR: AP6035501 (A) SOURCE CODE: UR/0135/66/009/011/0013/0015

AUTHOR: Borovushkin, I. V. (Engineer); Petrov, G. L. (Doctor of technical sciences)

ORG: Leningrad Polytechnic Institute im. M. I. Kalinir (Leningradskiy politekhnicheskii institut)

TITLE: Effect of hydrogen on crack formation in the weld-adjacent zone in hardenable steels

SOURCE: Svarochnoye proizvodstvo, no. 11, 1966, 13-15

TOPIC TAGS: hardenable steel, steel, welding electrode, weld evaluation, material fracture, hydrogen, weld defect / 11KhN4MDA steel

ABSTRACT: Specimens of 11KhN4MDA hardenable steel were welded with ferritic or austenitic electrodes containing various amounts of hydrogen. To obtain different hydrogen contents, the electrodes were outgassed at different temperatures. Ferritic E70-type electrodes were held for 5 hr at 100, 300 or 490C, which produced a hydrogen content in the weld of 8, 4 and 0.5 cm³/100 g, respectively. Austenitic Kh16N25M6F2-type electrodes were held for 5 hr at temperatures of 350 or 100C or left in the as-delivered condition, producing hydrogen content

Card 1/2

UDC: 621.791.052.019:669.788:669.1-194

ACC NR: AP6035501

of 6, 12 and 20 cm³/100 g, respectively. Static bend tests showed that in welds made with ferritic electrodes, fractures occurred about 0.5 mm from the weld and that an increase of hydrogen content from 0.5—1.0 to 8—9 cm³/100 g decreased the breakdown load by 50%. Fractures of the austenitic welds occurred in the weld zone, and a reduction of hydrogen content from 20 to 6 cm³/100 g increased the breakdown load by about 150%. Austenitic welds were found to be less sensitive to hydrogen embrittlement. For example, specimens welded with ferritic electrodes containing 8 cm³/100 g hydrogen, and specimens welded with austenitic electrodes containing 20 cm³/100 g hydrogen, broke under the same load of 1200 kg after 10 or 25 min, respectively. Orig. art. has: 3 figures and 1 table.

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 006/
OTH REF: 006

Card 2/2

BOHCY, R.

BOHCY, R. Experience acquired from the building up of the coal industry.
p. 257.

Vol. 5, No. 8, Aug. 1955

UHLI

TECHNOLOGY

Praha, Czechoslovakia

So: East European Accessions, Vol. 5, No. 5, 1956

BOROVY, R.

BOROVY, R. Notes on problems concerning the economic effectiveness of
investments. p. 465.

Vol. 5, No. 10, Oct. 1955
ZA SOCIALISTICKOU VEDU A TECHNIKU
TECHNOLOGY
Praha, Czechoslovakia

So: East European Association, Vol. 5, No. 5, May 1956

BOROVY, R.

Problems of capital investment in the coal industry. p. 185.
ZA SOCIALISTICKOU VEDU A TECHNIKU, Prague, Vol. 4, no. 4, Apr. 1954.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 6,
June 1956, Uncl.

BOROVY, R.

Ptacek, K. Problems of interfactory business accounting in plants
under the General Administration for Development of the Coal Industry.
p. 349.
UHLI, Prague, Vol. 4, no. 11, Nov. 1954.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 6,
June 1956, Uncl.

BOROVY, R.

Before the large-scale development of the coal industry. p. 41.
(Uhli, Vol. 7, no. 2, Feb. 1957, Praha, Czechoslovakia.)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, no. 12, Dec. 1957.
Uncl.

BOROVYAGIN, V.I.; SAKHAROV, D.A.; VEPRINTSEV, E.N.

Intranuclear inclusion in the neuron of the mollusk *Tritonia*
dicnemata Berg. *Biophysika* 10 no.1:98-99 '65.

(MIRA 18:5)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.

BOROVYAGIN, V. L.

Institute of Biophysics, USSR Academy of Sciences, Moscow.

"Concerning the Alteration of the Structure of Axoplasm on Stimulation."

report presented at 4th Intl. Conference on Electron Microscopy, Berlin, GFR,
10-17 September 1958.

BOROVYAGIN, V.L.; YEFIMOV, V.N.; DUBROV, A.P.

Method of making glass knives for ultramicrotomy. Biofizika 3
no.6:732-734 '58. (MIRA 12:1)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.
(MICROTOMES,
glass knives (Rus))

BOROVYAGIN, V.L.; SHUNGSKAYA, V.Ye.

Fourth International Congress on Electron Microscopy. TSitologiya
1 no.4:467-473 J1-Ag '59. (MIRA 12:10)
(ELECTRON MICROSCOPY--CONGRESSES)

BOROVYAGIN, V.L.

Some data from electron microscope investigations of the ultrastructure of the peripheral nerve fibers in the frog. TSitologiya 2 no.2:138-143 Mr-Ap '60. (MIRA 14:5)

1. Laboratoriya zhivyykh struktur Instituta biologicheskoy fiziki AN SSSR, Moskva.
(ELECTRON MICROSCOPY) (NERVES, PERIPHERAL)

BOROVYAGIN, V.L.; KUPTSOV, M.G.

Some improvements in the UEM-100 electron microscope for the investigation of biological objects. Biofizika 5 no.3:366-368 '60.

(MIRA 13:7)

1. Institut biologicheskoy fiziki Akademii nauk SSSR, Moskva.
(ELECTRON MICROSCOPY)

BOROVYAGIN, V.L.

My elination of the peripheral nervous system in amphibians.
Dokl.AN SSSR 133 no.1:214-217 J1 '60. (MIRA 13:7)

1. Institut biofiziki Akademii nauk SSSR. Predstavleno
akademikom L.S. Shtern.
(NERVOUS SYSTEM—AMPHIBIA)
(NERVES, PERIPHERAL)

CHENTSOV, Yu.S.; BOROVYAGIN, V.L.; BRODSKIY, V.Ya.

Submicroscopic morphology of the ganglion neurons of the retina as a reflection of some characteristics of ~~their~~ metabolism. Biofizika 6 no.5:590-595 '61. (MIRA 15:3)

1. Institut biologicheskoy fiziki AN SSSR, Moskva i Institut morfologii zhivotnykh imeni A.N. Severtsova AN SSSR, Moskva.
(RETINA--INNERVATION)

BOROVYAGIN, V.L.; FRANK, G.M.

Submicroscopic organization and functional characteristics of the
Mullerian cells of the retina. Biofizika 7 no.1:42-50 '62.

(MIRA 15:5)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.
(RETINA)

BOROVYAGIN, V.L.

Electron microscope study of the retinal cones in the frog.
Biofizika, 7 no.2:154-164'62. (MIRA 16:8)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.
(RETINA) (ELECTRON MICROSCOPY)

BIRYUZOVA, Valentina Ivanovna; BOROVYAGIN, Valeriy Leonidovich;
GILEV, Vladimir Petrovich; KISELEV, Nikolay Andreyevich;
TIKHONENKO, Anna Sergeyevna; CHENTSOV, Yuriy Sergeyevich;
FRANK, G.M., otv. red.; SHMELEV, I.P., red.izd-va; RYLINA, Yu.V.,
tekhn. red.

[Electron-microscopic methods for studying biological objects]
Elektronnomikroskopicheskie metody issledovaniia biologicheskikh
ob'ektov. [By] V.I. Biryuzova i dr. Moskva, Izd-vo Akad. nauk
SSSR, 1963. 203 p. (MIRA 16:6)

1. Institut radiatsionnoy i fiziko-khimicheskoy biologii AN SSSR (for Biryuzova, Tikhonenko).
2. Institut biologicheskoy fiziki AN SSSR (for Borovyagin).
3. Laboratoriya elektronnoy mikroskopii AN SSSR (for Gilev).
4. Institut kristallografii AN SSSR (for Kiselev).
5. Institut morfologii zhivotnykh AN SSSR (for Chentsov).
6. Chlen-korrespondent AN SSSR (for Frank).
(Biological research) (Electron microscopy)

BOROVYAGIN, V.L.

Submicroscopic structure of the retinal rod in the frog.
Biofizika 7 no.6:734-740 '62. (MIRA 17:1)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.

BOROVYAGIN, V. L.; SAKHAROV, D. A.; VEPRINTSEV, B. N.

"Satellites of nerve cells in gastropod ganglion."

report submitted to 3rd European Regional Conf, Electron Microscopy,
Prague, 26 Aug-3 Sep 64.

BIRYUZOVA, Valentina Ivanovna; BOROVYAGIN, Valeriy Leonidovich;
GILEV, Vladimir Petrovich; KISELEV, Nikolay Andreyevich;
TIKHONENKO, Anna Sergeyevna; CHENTSOV, Yuriy Sergeyevich;
FRANK, G.M., otv. red.

[Electron microscopic methods in studying biological objects]
Elektronnomikroskopicheskie metody issledovaniia biologicheskikh ob"ektov. [By] V.I.Biryuzova i dr. Moskva, Izd-vo AN SSSR, 1963. 203 p.
(MIRA 17:5)

1. Chlen-korrespondent AN SSSR (for Frank). 2. Institut radiatsionnoy i fiziko-khimicheskoy biologii AN SSSR (for Biryuzova).
3. Institut kristallografii AN SSSR (for Kiselev). 4. Laboratoriya elektronnoy mikroskopii AN SSSR (for Gilev). 5. Institut morfologii zhivotnykh AN SSSR (for Chentsov). 6. Institut biologicheskoy fiziki AN SSSR (for Borovyagin).

8/0217/64/009/003/0312/0314

ACCESSION NR: AP4038935

AUTHOR: Borovyagin, V. L.; El'piner, I. Ye.

TITLE: The effect of ultrasonic waves on the submicroscopic structure of muscle tissue

SOURCE: Biofizika, v. 9, no. 3, 1964, 312-314

TOPIC TAGS: ultrasonic wave, ultrasound, mitochondrial submicroscopic structure, mitochondrion, sartorius, muscular tissue, ultrasonic effect, ultrasonic biological effect, mitochondrial membrane, sarcoplasmic nucleus, myofibril

ABSTRACT: The selective effect of ultrasound was studied in the submicroscopic structure of mitochondria of the isolated sartorius of the white mouse, under isometric conditions (isotonic with respect to the muscle), treated with ultrasound of 560 kc frequency and 10 watt/cm² at 4-6 C for 1, 5 or 10 minutes. The muscle was mounted on a frame. Preparation of the tissues is described. In the so treated muscle the interior mitochondrial membranes lost strict orientation and became detached from the outer membranes. This decomposition of interior structure increased with time; after 10 minutes the mitochondria were practically empty.

Card 1 of 2

BOROVIK, A. (Col.)

AID P - 2241

Subject : USSR/Aeronautics

Card 1/1 Pub. 135 - 5/19

Author : Borovykh, A., Col., Twice Hero of the Soviet Union

Title : ~~Responsibility of the commander for the mastering of~~
aviation engineering by pilots

Periodical: Vest. vozd. flota, 7, 21-24, J1 1955

Abstract : The author describes in general terms the complex equipment of contemporary aircraft and reminds pilots of the necessity of expert supervision and precise control. Examples of procedure in units are given. Several names are mentioned.

Institution: None

Submitted : No date

BOROVIN, A.Ye., general-major aviatsii, dvazhdy Geroy Sovetskogo Soyuza.

A most important objective of our aviators. Vest.pretivovozd.obor.
no.1:29-32 Ja '61. (MIRA 14'2)
(Flight training)

BOROVYKH, Andrey Yeogorovich, dvazhdy Geroy Sovetskogo Soyuz
general-leytenant aviatsii; SOKOLOV, V.D., podpolkovnik,
red.; KUZ'MIN, I.F., tekhn. red.

[Be an expert, a first-class specialist] Bud' otlichnikom,
klassnym spetsialistom. Moskva, Voenizdat, 1963. 51 p.
(MIRA 16:12)

(Military discipline)

86810

S/185/60/005/001/009/018
A151/A029

1220

1136, 1228, 1273

AUTHORS: Korsuns'kyy, M.I.; Borovykova, H.P.

THE EFFECT OF VERY SMALL ADMIXTURES OF ANTIMONY ON THE L-SERIES OF THE X-RAY SPECTRUM OF GERMANIUM

PERIODICAL: Ukrains'kyy Fizychnyy Zhurnal, 1960, Vol. 5, No. 1, pp. 88 - 93

TEXT: In Ref. 1 the authors reported on the effect of small admixtures of iron, cobalt and gallium on the L-series of the X-ray spectrum of a germanium single crystal. The aim of this investigation is to determine the relationship between the value of the displacement $\Delta E_{L\alpha} - \alpha_{II2}$ and the concentration of admixtures in Ge. The four lines (emission bands) of the L-series of Ge $L_{\alpha 1,2}$, $L_{\beta 5}$, $L_{\beta 1}$, and $L_{\gamma 5}$ (Ref. 1) were investigated with the aid of a high-vacuum X-ray spectrograph fitted with a bent crystal of mica, as well as by a mixed method of X-ray spectrum excitation. The curvature radius of the mica crystal was 1 m. The crystal's work surface was 10 x 40 mm. The X-ray tube and the spectrograph had a vacuum. The spectrum recording was effected by a photographic method on the film Agfa Isopan F $\frac{17}{10}$ DIN. The operation conditions of the tube: tension 1.5 kv, current 4 - 8 ma. The linear dispersion within the reflection angle range 10^{-3} to 10^{-1} rad mm^{-1} , the energy dispersion was $3.68 \text{ ev} \cdot \text{mm}^{-1}$. The photometric measure-
ment 1/2

X

86810

S/185/60/005/001/009/018
A151/A029

The Effect of Very Small Admixtures of Antimony on the L-Series of the X-Ray Spectrum of Germanium.

ments of the spectrum were carried out on the $M\phi-4$ (MF-4) microphotometer with a magnification coefficient of 1×8 . Each spectrogram was photometered three times on a different height of the lines. Three spectrograms were made of each of the germanium single crystals investigated. It is shown that an introduction of antimony in the quantity of $10^{-3} - 10^{-2}$ atomic percent into the Ge single crystal causes a displacement of the line $L_{\alpha 6}$ in relation to the line $L_{\alpha 1,2}$, and a displacement of the line $L_{\beta 5}$ in relation to the line $L_{\beta 1}$ of Ge by the value $1 - 2$ eV. The value of the displacement $\Delta E_{\beta 6} - \alpha_{1,2}$ is proportional to the cubic root from the concentration of the admixture atoms. A displacement of the lines $L_{\alpha 1,2}$ and $L_{\beta 1}$ to the short-wave direction was revealed which points to the displacement of the levels M_{IV}, γ with regard to the levels L_{III} and L_{II} . This displacement, however, is considerably smaller than the displacement of the level N_1 with regard to M_{IV}, γ . The width of the lines depends upon the concentration of admixture atoms in the germanium single crystal. A linear relationship was established between the increase in the width of the line and \sqrt{n} . There are 6 figures, 1 table and 1 Soviet reference.

ASSOCIATION: Kharkiv, Politekhichnyy instytut im. V.I. Lenina (Kharkov, Polytechnical Institute imeni V.I. Lenin).
Card 2/2 SUBMITTED: July 4, 1959

BOROVYY, A.A., red.; GIRSHKAN, I.A., red.; YAPPU, G.B., red.;
SOBOLEVA, Ye.M., tekhn. red.

[Design and construction of large dams; materials of the sixth International Congress on Large Dams] Proektirovanie i stroitel'stvo bol'shikh plotin; po materialam VI Mezhdunarodnogo kongressa po bol'shim plotinam. Sbornik statei pod obshchei red. A.A.Borovogo. Moskva, Gosenergoizdat, 1962. 559 p. (MIRA 16:5)

1. International Congress on Large Dams. 6th. New York, 1958. (Dams--Design and construction)

BOBOVYY, Ye.M.

Early laparotomy in some complications of gastric resection.
Khirurgiya no.7:50-52 J1 '55. (MLRA 8:12)

1. Iz khirurgicheskogo oddeleniya (sav. V.M.Vel'skiy) Rovenskoy
oblastnoy bol'nitsy (glavnyy vrach F.D.Kostyukovich)
(STOMACH, surg.
gastrectomy, compl. laparotomy)
(LAPAROTOMY,
in compl. of gastrectomy)

BOHOVYY, Ye. M.

Acute diverticular obstruction combined with intestinal vol-
vulus caused by ascariasis. Khirurgiia no.7:77 81 '55.

(MLRA 8:12)

1. Iz Kostopol'skoy rayonnoy bol'nitsy Rovenskoy oblasti.
(ASCARIDS AND ASCARIASIS) (INTESTINES--OBSTRUCTION)
(ILEUM--SURGERY)

BOROVYY, Ye.M.

~~XXXXXXXXXXXXXXXXXXXX~~

Hemorrhagic stomach ulcer penetrating into the spleen. Vest.khir.
75 no.4:129-130 My '55. (MIRA 8:8)

1. Iz khirurgicheskogo otdeleniya (sav.-V.M.Vel'skiy) Rovenskoy
oblastnoy bol'nitsy. USSR, g. Rovno, ul. Khrushcheva, d. 42.

(PEPTIC ULCER, perforation,
into spleen, with hemorrh.)

(HEMORRHAGE,
in peptic ulcer perf. into spleen)

Borovy, Ye. M.

BOROVYY, Ye.M.

~~XXXXXXXXXXXXXXXXXXXX~~

Acute obstruction caused by ascariasis. Vest.khir. 76 no.10:
119-121 N '55. (MLRA 9:1)

1. Iz Kostopol'skoy rayonnoy bol'nitsy (gl.vrach-V.M.Natalich)
- 1 Rovenskoy oblastnoy bol'nitsy (gl.vrach--T.D.Kostyukevich)
(INTESTINAL OBSTRUCTION, etiol. and pathogen.
ascariasis, surg. of small intestine, surg.)
(ASCARIASIS, compl.
intestinal obstruct.,surg.)

BOROVY, Ye.M.

So-called Volhynia goiter and its characteristics. Probl. endok.
i gorm. 3 no.6:101-102 M-D '57. (MIRA 11:3)

1. Iz khirurgicheskogo otdeleniya Rovenskoy oblastnoy bol'nitsy
(glavnyy vrach T.D. Kostyukovich).
(GOITER, epidemiology,
endemicity in Russia (Rus))

Borovy, Ye.M.
BOROVYY, Ye.M.

~~torators~~ of the sacrococcygeal region. Pediatria no.11:73-74
N '57. (MIRA 11:2)

1. Iz khirurgicheskogo otdeleniya (zav. V.M.Vel'skiy) Rovenskoy
oblastnoy bol'nitsy.
(SACROCCYGEAL REGION--TUMORS)

BOROVYY, Ye.M.

History of rural medicine in Volhynia; end of the 19th and beginning of the 20th century. Sov.zdrav. 17 no.9:54-56 S'58 (MIRA 11:8)

1. Iz Rovenskoy oblastnoy bol'nitsy (glavnyy vrach T.D. Kostyukevich)
(HISTORY, MEDICAL,
in Russia (Rus))

BOROVYY, Ye.M.

Early surgery in obstruction of the common bile duct. [with summary
in English] Khirurgiia 34 no.7:45-49 J1 '58 (MIRA 11:9)

1. Iz khirurgicheskogo otdeleniya (zav. V.M. Vel'skiy) Rovenskoy
oblastnoy bol'nitsy (glavnyy vrach T.D. Kostyukovich).

(BILE DUCTS, COMMON, diseases

obstruct., early surg. ther. (Rus))

BOROVYY, Ye.M.

Surgical treatment of Volhynian goiter. Khirurgiia 34 no.10:79-83
0 '58 (MIRA 11:11)

1. Iz khirurgicheskogo oddeleniya (zav. V.M. Vel'skiy, nauchnyy rukovoditel' - prof. G.G. Karavanov) Rovenskoy oblastnoy bol'nitsy (glavnyy vrach T.D. Kostyukovich).
(GOITER,
endemicity of Volhynian form (Bus))

BOROVYY, Ye.M.

Hemorrhaging ulcer of the duodenum in a 7-year-old child; abstract.
Khirurgiya 34 no.12:97 D '58. (MIRA 12:1)

1. Iz khirurgicheskogo otdeleniye Rovenskoy oblastnoy bol'nitsy.
(PEPTIC ULCER)

BOROVYY, Ye.M. (Rovno, ul. Khrushcheva, d.42)

Policy of a district surgeon in acute gastroduodenal hemorrhages
[with summary in English, p.157]. Vest.khir. 80 no.1:32-34 Ja '58.
(MIRA 11:4)

1. Iz khirurgicheskogo otdeleniya (zav. - V.M.Vel'skiy) Rovenskoy
oblastnoy bol'nitsy.

(PEPTIC ULCER, hemorrh.
surg., indic. (Rus))

BOROVYY, Ye.M. (Rovno, ul. Khrushcheva, d. 42)

Traumatic relaxation of the diaphragm. Vest.khir. 81 no.12:82-83
D '58. (MIRA 12:2)

1. Iz khirurgicheskogo otdeleniya Rovenskoy oblastnoy bol'nitsy
(gl. vrach - T.D. Kostyukovich).
(HERNIA, DIAPHRAGMATIC, etiol. & pathogen.
trauma (Rus))

BOROVYY, Ye.M. (Rovno)

Some data on the development of surgery in Volhynia. Nov.khir.
arkh. no.4:123 J1-Ag '59. (MIRA 12:11)
(VOLHYNIA--SURGERY)

BOROVYY, Ye.M. (Rovno, ul. Dimitrova, d.42)

Case of intrathoracic prosthesis of the esophagus. Nov.khir. arkh.
no.6:90-91 N-D '59. (MIRA 13:4)

1. Khirurgicheskoye otdeleniye (zaveduyushchiy - zaslushenny vrach
USSR V.M. Vel'skiy) Rovenskoy oblastnoy bol'nitsy.
(ESOPHAGUS--CANCER) (SURGERY, PLASTIC)

BOROVYY, Ye.M.

Diagnosis of presacral phlegmons. Khirurgia 35 no.4:118-
119 Ap '59. (MIRA 12:8)

1. Iz khirurgicheskogo otdeleniya (zav. V.M.Vel'skiy) Rovenskoy
oblastnoy bol'nitsy.

(PHLEGMON, case reports

presacral retroperitoneal, diag. (Rus))

(RETROPERITONEAL SPACE, dis.

phlegmon, presacral, diag. (Rus))

BOROVYY, Ye.M.

Surgical tactics in nonulcerative gastric hemorrhages under district hospital conditons. Khirurgiia 35 no.12:56-58 D '59. (MIRA 13:6)

1. Iz khirurgicheskogo otdeleniya (zav. V.M. Vel'skiy) Roven-skoy oblastnoy bol'nitsy (glavnyy vrach T.D. Kostynkevich). (HEMORRHAGE GASTROINTESTINAL surgery)